

ART. XXX.—*On two new Fishes.* By F. E. CLARKE.

## Plate. VI.

[*Read before the Westland Institute, 12th December, 1877.*]

BEFORE proceeding with the descriptions of the new species of fishes I have the honour to bring under your notice this evening, a few remarks may not be out of place.

Situated as we are on such a comparatively barren and exposed coastline, many perhaps will be astonished to hear that the opportunities for collecting the rarities of pelagic life are much more frequent than might be expected. Our exposed position at once accounts for this; as a gale or strong wind from almost any of the western points of the compass sends home a heavy sea to our beaches, and, in all such cases, although a "heavy blow" to some of the beach residents, affords delight to the collector; thus again proving the old adage, "'Tis an ill wind that blows nobody any good."

The fish I purpose first describing belongs to a genus exceedingly rare, and up to the present has been found (after violent storms) in a few isolated situations in the Mediterranean and Atlantic only. The number of species (inclusive of our own) is five, and the individuals met with might almost be numbered on our fingers. More common genera of the family to which they belong, such as *Scopelus*, *Maurolicus*, and *Gonostoma*, and with them *Cyttus abbreviatus*, Hector,\*—a fish the typical specimen of which was dredged up during the "Challenger" expedition off the coast of New Zealand from the great depth of 400 fathoms—are cast up on our coast more or less by every gale which sends a south-west sea home. And here let me digress, and perhaps infringe on one of Captain Turnbull's specialities, "the currents." The continuous set of current from south-west up the coast has not been as prevalent lately as four or five years back. Then the occurrence of the purely pelagic fishes—Crustaceans and *Hydrozoa*—was much more frequent. Of late years the direction of wind has averaged more north round by east, than south round by west, thus retarding the "set," and driving any waifs and strays on surface currents from the coast. Only at intervals has the "set" regained its former constancy with strong south-westers, and we have again our casual flotsam.

The fish secondly described forms a new genus in the family of *Pediculati* and is truly "a king among kings" in a class of fishes containing some of the most grotesque forms in nature. The probable use of the tentacular appendage as an attractive lure, is beyond conjecture, as the habits of an

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\* "Trans. N.Z. Inst.," VII., p. 247, and IX, p. 465.

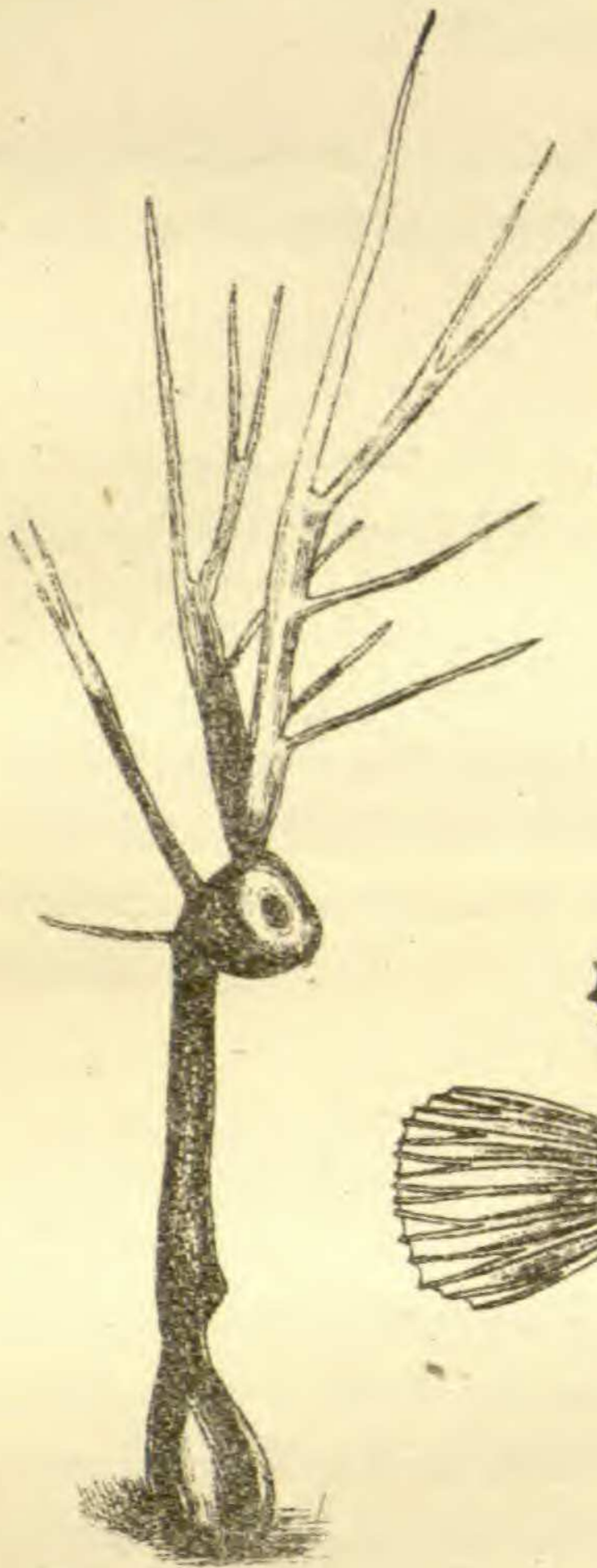
allied fish (the angler), which is supplied with a far less complicated attachment, have been closely studied and proved it to be "a fish which angles for fish," with a natural rod, line, and bait, and with certainly as deadly a "creel" as any human disciple of Isaac Walton might have to which to relegate its captives.

I take this opportunity, too, of acknowledging with thanks the kindness of Mr. Appel, V.S., of this town, to whom this last fish was sent by its collector, and who has kindly allowed me to figure and describe it.

**ARGYROPELECUS INTERMEDIUS, sp. nov.**

D. 1-7; P. 7; V. 6, single; A. 7; C. 24.

The height of the body equals length, and is less than the distance between gill-covers and root of caudal; the length of head is contained three times in distance from end of chin to root of caudal; tail very slender; abrupt termination of body midway between tip of snout and end of caudal fin (expanded); osseous dorsal plate with one double and four (last very minute) spinous processes imbedded in its substance; pectoral fin barely reaches to ventral; orbit of eye oblong, pupil on summit; eyes approach very close together on top of head; posterior margin of præoperculum almost borders hind part of orbit, descends in straight line and terminates in a double spine, the superior curving upwards, inferior continuing in direction followed by margin; prominent spine at posterior corner of mandibles; spine on chin, pointing directly forwards; spine over temporals; spine on throat, before commencement of serrature; serrature terminates in double pubic spine, the inferior portion of which is curved and barbed, presenting a very formidable armature though on so small a scale; no appearance of adipose fin; commencement of soft dorsal fin midway between snout and end of tail; pectoral and caudal fins well developed; one ventral fin only, placed in median line of body above pubic spine; four luminous spots on lower side of tail before commencement of caudal fin; six over and partly behind anal fin, and three immediately in front of same, all surrounded with black skin; long luminous streak on lower abrupt termination of body above pubic spine; along lower sides of body a superior row of spots, ten in number, to base of pectoral fin, and an inferior series, thirteen in number, terminating in vertical with posterior limb of præoperculum, each spot in the above two rows being in intervals between ribs, which are very prominent, giving a striate appearance to body; under margin of gill-covers, and on throat before pectorals, a series of four spots; single series of recurved conical teeth, minute at angles of gape on upper jaw, large towards centre of upper and lower jaws; tongue thick and fleshy; sides of body, cheeks and throat covered with silvery pigment; back, top of head, and tail bare; back dark-purplish brown; tail flesh-coloured with



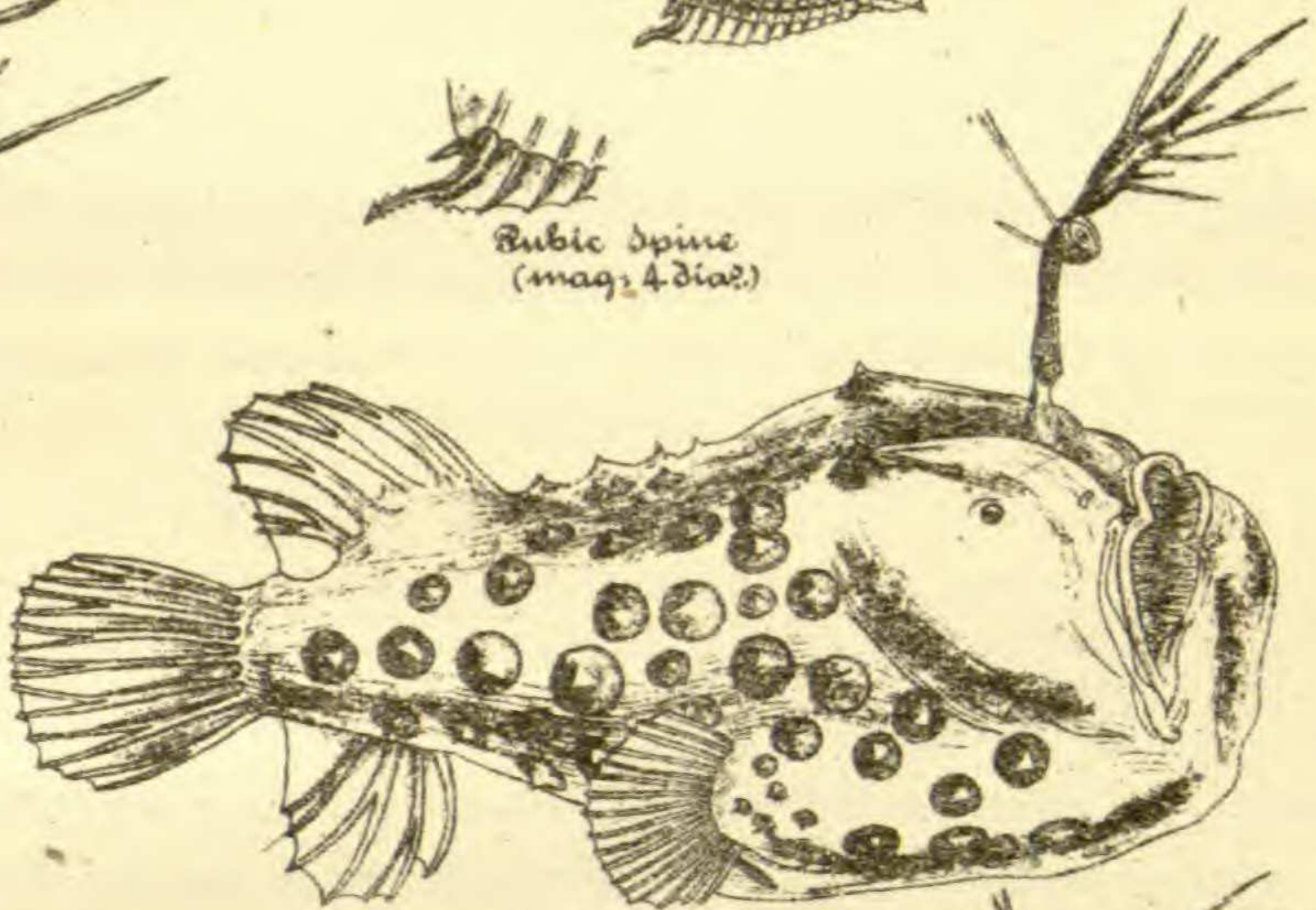
Natural size.



*Argyropilectus intermedius*  
(mag. 2 dia.)



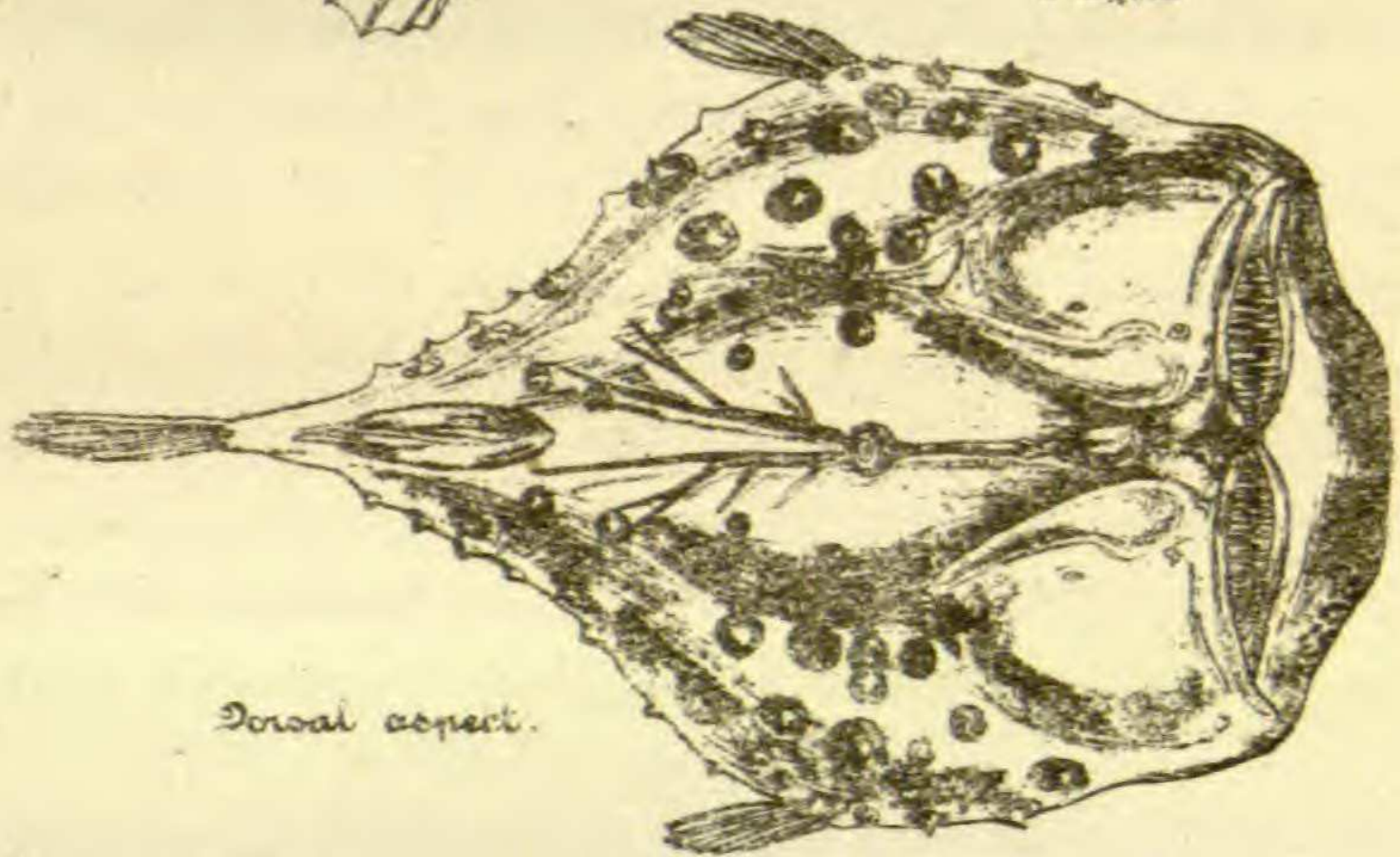
Buccal spine  
(mag. 4 dia.)



*Aegaonichthys appellii*.  
( $\frac{1}{3}$  natural length)



Profile



Dorsal aspect.

mottled band above, and a series of luminous spots before caudal and over anal fins; eyes, iris dark blue, pupil black; fins almost immaculate.

	Inches.
Total length .. .. .	1·22
Total depth .. .. .	0·60
Length of body .. .. .	0·60
Longest diameter of eye .. .. .	0·14
Shortest do. do. .. .. .	0·10
Length of head .. .. .	0·34
Distance from posterior margin of gill-covers to end of tail..	0·70

Specimen was collected on beach, Hokitika, 28th October, 1877, after heavy gales; other fishes obtained at same time belonged to genera *Cyttus*, *Maurolicus*, *Gonostomus* and *Scopelus*, and a pelagic crustacean, *Phronima novæ-zealandiæ*."

Family, *Pediculati*.

Nov. genus, *ÆGÆONICHTHYS*.

Head and body excessively large, broad, and depressed; tail very short; mouth exceedingly wide and vertical; supra-orbital bones produced into heavy ridges, divergent posteriorly, covered with the common skin and terminating in a small strong spine directed upwards; between ridges a deep groove in which is situated over head a compound appendage capable of movement in an almost universal manner and with a thick, pear-shaped, muscular base, bony shaft, surmounted with a semispherical capsular gland, from the back and upper margin of which arise one simple, one double-branched and two compound-branched fleshy tentacles, terminating at free ends of branches in white shining vermiform tips; the front of the capsular gland is covered with a silvery or nacreous integument with aperture in centre connected with interior and surrounded with a black ring; body and tail armed with broad-based conical spines ending in fine points; one short dorsal and short anal each terminating close to caudal and placed far back; pectorals small and but imperfectly pediculated; teeth in both jaws very numerous, in various rows, and of unequal lengths, they are slightly recurved, flat, sharp-pointed with cutting edges, moving freely in socket when pressed in direction of interior of mouth but perfectly rigid in opposite direction; the teeth in pharynx short and recurved, and in clusters on branchiostegals; gill openings in axillæ and partly on under surface of body.

Habitat—Seas of New Zealand.

**ÆGÆONICHTHYS APPELII, sp. nov.**

D. 5; P. 17; A. 4; C. 8.

Spines more numerous on ventral surface than on sides or back; inside the mouth at the back of the teeth (upper and lower jaws) is a black tough fleshy flap extending from one side to the other; tongue immensely broad,